



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/760,408

01/12/2001

Bjorn Broberg

AWA-050 XX

1763

207

7590

09/09/2004

WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP  
TEN POST OFFICE SQUARE  
BOSTON, MA 02109

EXAMINER

WANG, JIN CHENG

ART UNIT

PAPER NUMBER

2672

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/760,408

Applicant(s)

BROBERG, BJORN

Examiner

Jin-Cheng Wang

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities: On page 10, line 31 of the specification, “an representation” should be “a representation”. On page 13, line 25, “an representation” should be “a representation”. Appropriate correction of all mistakes is required.

### *Claim Objections*

Claim 6 is objected to because of the following informalities: On page 13, line 4 of the claim 6, “an representation” should be “a representation”. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112 – Second Paragraph*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. For example, the Claim 6 recites, “determining if said representation element is an installation element and conditioned if said representation element is an installation element”. It is not clear from the claim language as recited in the claim 6 whether the claim limitation merely states determining if said representation element is an installation element or determining if said representation element is an installation element wherein the determination is conditioned on something not recited in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Solberg et al.

U.S. Pat. No. 6,134,338 (hereinafter Solberg).

Claim 1:

Solberg teaches a method for A method for automatically generating and connecting a text string to at least one installation element in a representation of an installation system in a computer readable form, such as a CAD-drawing, said text string indicating the properties of said element in said installation system, comprising, for each installation element, the steps of

Identifying the type of said installation element (*e.g., one of the installation elements comprising windows, doors, toilets, electrical outlets, chairs, desks, holes, threads for machine screws or bolts within the architectural plans or architectural plans themselves, in column 3 and 11, 21 and 23, to be installed on a house in architectural plans and the type of the installation element is D2 for door and W3 for window, etc. in column 12, 29-30*) used in said representation of an installation system (*e.g., architectural plan constitutes a representation of an installation system for a house or electrical system outlets inside the house as a part of the architectural*

Art Unit: 2672

*plan, or the doors and windows installation in a room as a part of the architectural plan; column 3, 11 and 12, 29-30);*

Reading for said element type (e.g., *a symbol type is associated with the element; column 21 and 23*), from a database (e.g., *symbol type comprising the content symbols which are resident in the database; column 23, each linked to a symbol property 178 such as dimensions for length, depth and width and height of doors or length, diameter and thread angle of bolts, and represent a moiety and associated with alphanumeric text 181 related to the insertion point of the moiety of the symbol 176 into the 3D object; pre-drawn vector files of the moieties corresponding to these dimensions are either imported from the database or scanned from materials, e.g., tables, standards, text booking containing standardized symbols and attributed to the symbol 374; column 29-30*), predetermined rules (e.g., *predetermined dimensions for length, width and height and shape of the door and length, diameter and thread angle of bolts or the predetermined font types associated with the symbols; column 21, 23 and 29-30*) and a text pattern (e.g., *the font type associated with alphanumeric text; column 21, 23, 27 and 29-30*) corresponding to the type of said element (e.g., *the type of door or window or bolts or electrical outlets; column 29-30; OR the type of architectural plans/drawings; column 20-21 and 23; or more generally the symbol type associated with a symbol for the installation element*), said rules determining which properties of said element type present (e.g., *the symbol properties 178 defining the properties of a symbol 174 comprising symbols 175 and the content symbol 176; column 27 and 29*) and said text pattern being a layout scheme (e.g., *the layout scheme in the architectural plans or the page layout of the architectural plans according to the dimensioning styles, text styles and measurement unit types of the installation elements; column 20-21 and 23*)

Art Unit: 2672

for said determined properties (*e.g., dimensions, text styles and measurement unit types; column 29-30*);

Combining (*e.g., combining for the symbols the dimensions with the alphanumerical texts which are customizable; column 21 and 23 wherein the user-customizable parameter settings are chosen for the symbols 174*), from said representation of the installation system, the properties of said element (*e.g., the dimensions and shape of a moiety such as a door or a window or the length, diameter and thread angle of bolts; column 29-30; and measurement unit types and font types for the symbols; column 21 and 23*), such as dimensions, with said text pattern (*e.g., alphanumeric text being combined with the dimensions and shapes of the doors and windows or a moiety; or the length, diameter and thread angle of bolts in the architectural plan; column 29-30*) to produce a text string (*e.g., to produce a text string within the symbol library 171 to be presented in the architectural plans; column 29*) for said element based on said rules; and

Connecting said text string with said element in said representation (*e.g., connecting the customized alphanumeric text with the door, window, bolts and electrical outlets in the architectural plans; column 21, 23, 27 and 29-30*).

Claim 2:

The claim 2 encompasses the same scope of invention as that of the claim 1 except additional claim limitation of assigning different predetermined rules and text patterns for different users, allowing generating and connecting a user specific text string for each element. However, Solberg further discloses the claim limitation of assigning different predetermined rules and text patterns for different users (*e.g., customizing the font styles, dimension type, line*

Art Unit: 2672

*types and menus for symbols 174; column 21 and 23), allowing generating and connecting a user specific text string for each element (e.g., customizing the font styles, dimension type, line types and menus for symbols 174; column 21 and 23).*

Claim 3:

The claim 3 encompasses the same scope of invention as that of the claim 1 except additional claim limitation of defining additional rules for said element type, said additional rules settle whether a text string for said element type is to be presented; and determining, based on said additional rules of said element type, whether said text string is to be presented. However, Solberg further discloses the claim limitation of defining additional rules for said element type, said additional rules settle whether a text string for said element type is to be presented (e.g., *OCR is optimized to recognize dimensions expressed in feed and inches and to recognize numbers as well as the alphabet letters, and text strings such as those alphanumeric text strings used for the symbols in the preset symbol library, deciding whether the standardized thread descriptors such as English thread notes are to be presented according to the parameter settings 264; column 23); and determining, based on said additional rules of said element type, whether said text string is to be presented (e.g., OCR is optimized to recognize dimensions expressed in feed and inches and to recognize numbers as well as the alphabet letters, and text strings such as those alphanumeric text strings used for the symbols in the preset symbol library, deciding whether the standardized thread descriptors such as English thread notes are to be presented according to the parameter settings 264; column 23).*

Claim 4:

The claim 4 encompasses the same scope of invention as that of the claim 1 except additional claim limitation that said predetermined rules and said text pattern additionally comprises location constraints and instructions for positioning said text string, and the step of connecting said text string comprises the substeps of: searching said representation of an installation system in order to find a location to put said text string satisfying the predetermined rules; and applying said text string to the representation of the installation system on said location.

However, Solberg further discloses the claim limitation that said predetermined rules and said text pattern additionally comprises location constraints (*e.g., the insertion point of the installation element such as moiety or door or window and/or location of text; column 27, 29-30, 37*) and instructions for positioning said text string (*e.g., the location of text; column 37*), and the step of connecting said text string comprises the sub-steps of: searching said representation of an installation system in order to find a location to put said text string (*e.g., the location text; column 37 with a set of preset parameters such as new dimension text, font size, font style and associated dimensional arrows and lines; column 37*) satisfying the predetermined rules; and applying said text string to the representation of the installation system on said location (*e.g., column 37*).

Claim 5:

The claim 5 encompasses the same scope of invention as that of the claim 1 except additional claim limitation that connecting said text string comprises the substep of: introducing



Art Unit: 2672

a line between said text string and said corresponding element indicating the relationship between said text string and said element.

However, Solberg further discloses the claim limitation that connecting said text string comprises the substep of: introducing a line between said text string and said corresponding element indicating the relationship between said text string and said element (*e.g., the location text is determined by a set of preset parameters such as new dimension text, font size, font style and associated dimensional arrows and lines; column 37*).

Claim 6:

The claim 6 encompasses the same scope of invention as that of the claim 1 except additional claim limitation that the step of identifying said element type used in said representation comprises the substeps obtaining at least measurements and geometry of a representation element on said representation; comparing at least said measurements and said geometry with a database comprising measurement and geometry data of installation elements; and determining if said representation element is an installation element and conditioned if said representation element is an installation element, determining the element type of said representation element.

However, Solberg further discloses the claim limitation that the step of identifying said element type used in said representation comprises the substeps obtaining at least measurements (*e.g., measurement comprising the measurement units such as feet and inches; column 23*) and geometry (*e.g., dimensioning comprising the diameters, length, width and heights; column 29-*

Art Unit: 2672

30) of a representation element on said representation; comparing at least said measurements and said geometry with a database comprising measurement and geometry data of installation elements (*e.g., at least the OCR recognition determines the comparison step for the symbols having the measurements and geometry information are imported from the database and dimensions are imported from database; column 23 and 30*); and determining if said representation element is an installation element (*e.g., at least the OCR recognition determines the representation element symbol types; column 21, 23 and 29-30*) and conditioned if said representation element is an installation element (*this limitation is indefinite and does not carry patentable weight*), determining the element type of said representation element (*e.g., determining the symbol type associated with the installation element; column 23*).

Claim 7:

The claim 7 encompasses the same scope of invention as that of the claim 1 except additional claim limitation that each element type corresponds to a text pattern stored in said database, and said text pattern comprises at least one field having a distinct position in said text pattern, and corresponding to specific variable such as diameter or material.

However, Solberg further discloses the claim limitation that each element type corresponds to a text pattern stored in said database (*e.g., the symbol type having a text pattern are stored in the database; column 23 and 30-31*), and said text pattern comprises at least one field having a distinct position in said text pattern (*e.g., the text pattern associated with the symbol is set by the preset parameters such as measurement unit type, text size, font style and dimensioning style; for example, the diameter or thread angle associated the bolt installation*

Art Unit: 2672

*element has a distinct position in said text pattern; column 23 and 30-31), and corresponding to specific variable such as diameter or material (e.g., specific dimensions of the bolt including length, diameter and thread angle; column 30-31).*

Claim 8:

The claim 8 encompasses the same scope of invention as that of the claim 7 except additional claim limitation that said text pattern comprises at least two fields, having a relative order with respect to both columns and rows of said text pattern.

However, Solberg further discloses the claim limitation that said text pattern comprises at least two fields, having a relative order with respect to both columns and rows of said text pattern (*e.g., the text pattern associated with the symbol is set by the preset parameters such as measurement unit type, text size, font style and dimensioning style; for example, the diameter or thread angle associated the bolt installation element has a distinct position in said text pattern; column 23 and 30-31).*

Claim 9:

The claim 9 encompasses the same scope of invention as that of the claim 2 except additional claim limitation of defining additional rules for said element type, said additional rules settle whether a text string for said element type is to be presented; and determining, based on said additional rules of said element type, whether said text string is to be presented.

However, Solberg further discloses the claim limitation of defining additional rules for said element type, said additional rules settle whether a text string for said element type is to be

Art Unit: 2672

presented (e.g., *OCR is optimized to recognize dimensions expressed in feet and inches and to recognize numbers as well as the alphabet letters, and text strings such as those alphanumeric text strings used for the symbols in the preset symbol library, deciding whether the standardized thread descriptors such as English thread notes are to be presented according to the parameter settings 264; column 23*); and determining, based on said additional rules of said element type, whether said text string is to be presented (e.g., *OCR is optimized to recognize dimensions expressed in feet and inches and to recognize numbers as well as the alphabet letters, and text strings such as those alphanumeric text strings used for the symbols in the preset symbol library, deciding whether the standardized thread descriptors such as English thread notes are to be presented according to the parameter settings 264; column 23*).

## Claim 10:

The claim 10 encompasses the same scope of invention as that of the claim 2 except additional claim limitation that said predetermined rules and said text pattern additionally comprises location constraints and instructions for positioning said text string, and the step of connecting said text string comprises the substeps of: searching said representation of an installation system in order to find a location to put said text string satisfying the predetermined rules; and applying said text string to the representation of the installation system on said location.

However, Solberg further discloses the claim limitation that said predetermined rules and said text pattern additionally comprises location constraints (e.g., *the insertion point of the installation element such as moiety or door or window and/or location of text; column 27, 29-30,*

Art Unit: 2672

37) and instructions for positioning said text string (*e.g., the location of text; column 37*), and the step of connecting said text string comprises the sub-steps of: searching said representation of an installation system in order to find a location to put said text string (*e.g., the location text; column 37 with a set of preset parameters such as new dimension text, font size, font style and associated dimensional arrows and lines; column 37*) satisfying the predetermined rules; and applying said text string to the representation of the installation system on said location (*e.g., column 37*).

Claim 11:

The claim 11 encompasses the same scope of invention as that of the claim 3 except additional claim limitation that said predetermined rules and said text pattern additionally comprises location constraints and instructions for positioning said text string, and the step of connecting said text string comprises the substeps of: searching said representation of an installation system in order to find a location to put said text string satisfying the predetermined rules; and applying said text string to the representation of the installation system on said location.

However, Solberg further discloses the claim limitation that said predetermined rules and said text pattern additionally comprises location constraints (*e.g., the insertion point of the installation element such as moiety or door or window and/or location of text; column 27, 29-30, 37*) and instructions for positioning said text string (*e.g., the location of text; column 37*), and the step of connecting said text string comprises the sub-steps of: searching said representation of an installation system in order to find a location to put said text string (*e.g., the location text; column 37 with a set of preset parameters such as new dimension text, font size, font style and*

Art Unit: 2672

*associated dimensional arrows and lines; column 37)* satisfying the predetermined rules; and applying said text string to the representation of the installation system on said location (*e.g., column 37*).

Claim 12:

The claim 12 encompasses the same scope of invention as that of the claim 1 except additional claim limitation that the step of connecting the text string to the representation comprises the additional steps of testing positions gradually increasing distance from the centre of the installation element until a position is identified on which the text string does not overlap any other features on the representation, and to place the text string on said identified position.

However, Solberg further discloses the claim limitation that the step of connecting the text string to the representation comprises the additional steps of testing positions gradually increasing distance from the center of the installation element until a position is identified on which the text string does not overlap any other features on the representation, and to place the text string on said identified position (*e.g., the user determines and picks the location of the text and/or the insertion point; column 37 and 39, by testing different locations*).

Claim 13:

The claim 13 encompasses the same scope of invention as that of the claim 12 except additional claim limitation that at least two positions are tested on each chosen distance.

However, Solberg further discloses the claim limitation that at least two positions are tested on each chosen distance (*e.g., the user determines and picks the location of the text and/or*

Art Unit: 2672

*the insertion point; column 37 and 39, by testing different locations on each chosen distance or insertion point).*

Claim 14:

The claim 14 encompasses the same scope of invention as that of the claim 12 except additional claim limitation that the distance is increased in stepwise increments.

However, Solberg further discloses the claim limitation that the distance is increased in stepwise increments (*e.g., the user determines and picks the location of the text and/or the insertion point; column 37 and 39, by testing different locations wherein the distance picked by user are in stepwise increments in horizontal or vertical direction*).

Claim 15:

The claim 15 encompasses the same scope of invention as that of the claim 1. The claim 15 is subject to the same rationale of rejection set forth in the claim 1.

Claim 16:

The claim 16 encompasses the same scope of invention as that of the claim 1. The claim 16 is subject to the same rationale of rejection set forth in the claim 1.

Claim 17:

The claim 17 encompasses the same scope of invention as that of the claim 13 except additional claim limitation that at least two positions are tested on each chosen distance.

However, Solberg further discloses the claim limitation that at least two positions are tested on each chosen distance (*e.g., the user determines and picks the location of the text and/or*

Art Unit: 2672

*the insertion point; column 37 and 39, by testing different locations in horizontal or vertical direction).*

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jcw



Application/Control Number: 09/760,408

Page 16

Art Unit: 2672

A handwritten signature in black ink, consisting of stylized, overlapping loops and a long horizontal stroke extending to the right.

MICHAEL RAZAVI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600